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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/763,714	01/23/2004	Daniel Chien	60130-1495; 02MRA0344	7325
26096	7590	09/08/2004	EXAMINER	
CARLSON, GASKEY & OLDS, P.C. 400 WEST MAPLE ROAD SUITE 350 BIRMINGHAM, MI 48009			KRAMER, DEVON C	
			ART UNIT	PAPER NUMBER
			3683	

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/763,714

Applicant(s)

CHIEN ET AL.

Examiner

Devon C Kramer

Art Unit

3683

MW

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

Drawings

1) The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 34, 36, 38, 48, 50, 62, 68, and 70. Corrected drawing sheets, or amendment to the specification to add the reference character(s) in the description, are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3) Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6 recites the limitation "said actuator" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

4) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5) Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Attinger (CH 663387).

In re claims 1 and 13, Attinger provides an axle assembly (figure 1) for a vehicle comprising, an axle shaft (3) mounted for rotation within a housing (7), a hub (2) fixed to a first end of said axle shaft, and a brake assembly (11) mounted to said shaft and spaced a distance from said hub, such that said brake assembly is outside a wheel mountable to said hub.

IN re claim 2, it is inherent that the a portion of the wheel mountable to the hub extends a distance along an axis of rotation of the axle shaft and the distance from the hub is greater than the distance the wheel extends along the axis of rotation.

In re claim 3, the figure shows two hubs (2) attaching to vehicle wheels.

In re claim 4 and 14, see elements 11, and 14.

IN re claim 5, applicant does not specifically state where the second end of the shaft is located, therefor the place where the rotor in Attinger is mounted can be considered a second end.

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In re claim 6, the brake of Attinger is placed on a rail vehicle. Rail vehicles are notorious for having pneumatic brakes.

6) Claims 1-5, 7-10 and 13-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Inoue et al (2002/0028721).

In re claims 1 and 13, Inoue et al provides an axle assembly (figure 2) for a vehicle comprising, an axle shaft (8) mounted for rotation within a housing (80), a hub fixed to a first end of said axle shaft, and a brake assembly (22) mounted to said shaft and spaced a distance from said hub, such that said brake assembly is outside a wheel mountable to said hub.

IN re claim 2, it is inherent that the a portion of the wheel mountable to the hub extends a distance along an axis of rotation of the axle shaft and the distance from the hub is greater than the distance the wheel extends along the axis of rotation.

In re claim 3, figure 2 shows two hubs attaching to vehicle wheels.

In re claim 4 and 14, see elements 91 and 93.

IN re claim 5, applicant does not specifically state where the second end of the shaft is located, therefor the place where the rotor in Inoue et al is mounted can be considered a second end.

IN re claim 7, Inoue et al provides a hydraulic actuator.

In re claims 8 and 15, see figure 2, and element 110.

IN re claims 9 and 16, the bearings used in figure 2 are notorious for operating as claimed.

In re claims 10 and 17, please note the seal depicted in figure 8, adjacent element 110.

Claim Rejections - 35 USC § 103

7) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8) Claims 11-12 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Attinger (CH 663387) or Inoue et al (2002/0028721) in view of Seki (2003/0136613).

Both Attinger and Inoue et al are silent to the suspension assembly.

Seki teaches an arrangement where a housing is connected to a suspension assembly (figure 5) where a suspension arm (26) is pivotally mounted to a frame (3).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the axle assemblies of Attinger or Inoue et al with the suspension assembly as taught by Seki merely to provide the vehicle with a suspension to improve the ride for a driver, and to make the vehicle more safe.

Conclusion

9) The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Watanabe et al, Klaue, JP 3197290, JP 55107132, Morin, and DE 19536095 all provide axle housings with brake discs attached to the axles.

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10) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devon C Kramer whose telephone number is 703-305-0839. The examiner can normally be reached on Mon-Fri 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Lavinder can be reached on 703-308-3421. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DK

A handwritten signature, possibly reading 'Devon C. Kramer', is written above the date '4-7-04'.